In this contest, we aim to predict users' preference on Dec., 2015 (Table 4) based on his/her online/on-site behavior between July 1 st , 2015 and Nov. 30 th , 2015 (Table 1, 2). Moreover, budget constraints are imposed on each merchant (Table 3), simulating the limited discount/coupons available.

**Data**This task involves following data accumulated on Tmall.com/Taobao.com and the app Alipay.

Remark 1: Due to both business and noise concerns, we remove data in the great promotion period. That is, Nov. 01-Nov. 20 in Table 1 and Dec.12 in Table 4.   
Remark 2: Data are biased sampled from the daily log, thus its distribution would be different from the distribution of our entire business. Nevertheless, we believe it won’t affect too much on users’ preference prediction.   
Remark 3: The `budget’ constraints in Table 3 denotes the number of coupons the merchant offers in December, which is estimated by domain knowledge. See the ``evaluation metric’’ for more detail.   
Remark 4: To prevent overfitting, predicted results associated to half of the merchant set are evaluated at this stage, while the full set will be used after May 24. That is, some merchants are directly removed from both your recommendation list and the truth without evaluation before updating.

Table 1: Online user behavior before Dec. 2015. (ijcai2016\_taobao)

|  |  |
| --- | --- |
| **Field** | **Description** |
| User\_id | unique user id |
| Seller\_id | unique online seller id |
| Item\_id | unique item id |
| Category\_id | unique category id |
| Online\_Action\_id | “0” denotes “click” while “1” for “buy” |
| Time\_Stamp | date of the format “yyyymmdd” |

Table 2: Users’ shopping records at brick-and-mortar stores before Dec. 2015. (ijcai2016\_koubei\_train)

|  |  |
| --- | --- |
| **Field** | **Description** |
| User\_id | unique user id |
| Merchant\_id | unique merchant id |
| Location\_id | unique location id |
| Time\_Stamp | date of the format “yyyymmdd” |

Table 3: Merchant information. (ijcai2016\_merchant\_info)

|  |  |
| --- | --- |
| **Field** | **Description** |
| Merchant\_id | unique merchant id |
| Budget | budget constraints imposed on the merchant |
| Location\_id\_list | available location list, e.g. 1:356:89 |

**Submission** (sample “[submission.csv](https://aliyuntianchiresult.cn-hangzhou.oss.aliyun-inc.com/file/race/documents/231532/submission.csv?Expires=1461296245&OSSAccessKeyId=2zep9f8tkzg6ennfl26ciifi&Signature=Cg97hCwQHS8edvinrWdbQrnFcUw%3D) ”)

Table 4: Prediction result. (ijcai2016\_koubei\_test)

|  |  |
| --- | --- |
| **Field** | **Description** |
| User\_id | unique user id |
| Location\_id | unique location id |
| Merchant\_id\_list | you may recommend at most 10 merchants here, separated by “:”, e.g. 1:5:69 |

